II. CLAIM AMENDMENTS

1-7. (Cancelled)

8. (Original) A method for producing an intravascular stent reducing complications after implantation into a vessel, comprising the steps of:

providing a stent body suitable for implantation; and

applying 17beta-estradiol to said stent body.

9. (Original) The method of claim 8, wherein said stent body has a surface and said 17beta-estradiol is provided on said surface of said stent body.

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10. (Original) The method of claim 9, comprising the steps of:

providing a stent body defining an inner surface and an outer surface; and

providing 17beta-estradiol on said inner surface and/or said outer surface of said stent body.

11. (Original) The method of claim 10, wherein said stent body is provided with an adhesive layer for said 17beta-estradiol on said inner surface and/or said outer surface.

12. (Original) The method of claim 11, wherein said adhesive layer contains DLC ("diamond-like carbon").

13. (Original) The method of claim 8, wherein said 17beta-estradiol is applied to said surface of said stent body by means of a surface coating process.

14. (Original) The method of claim 13, wherein said surface coating process is a CVD process ("chemical vapor deposition process").

15. (Original) The method of claim 14, comprising the steps of:

inserting said stent body to be coated with 17beta-estradiol together with said 17beta-estradiol into a vacuum chamber; and

vaporizing said 17beta-estradiol.

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16. (Original) The method of claim 15, wherein said vacuum chamber has a chamber wall, at least a part of said chamber wall being heated.

17. (Original) The method of claim 15, wherein said stent body to be coated with 17beta-estradiol is cooled.

18. (Original) The method of claim 15, wherein a plurality of stent bodies to be coated with 17beta-estradiol is provided in said vacuum chamber at the same time.

19. (Original) The method of claim 18, wherein said stent bodies to be coated with 17beta-estradiol are cooled by means of common cooling means.

20. (Original) The method of claim 13, wherein said stent body is coated with 17beta-estradiol to obtain a layer of 17beta-estradiol having a predetermined thickness.

21. (Original) The method of claim 20, wherein said thickness of said layer of 17beta-estradiol is determined by means of layer thickness parameters.

22. (Original) The method of claim 21, wherein one of said layer thickness parameters is the duration of said coating process.

23. (Original) The method of claim 8 wherein a drug elution system is applied together with 17beta-estradiol to said stent body to be provided with 17beta-estradiol.

24. (Original) An arrangement for coating one or more intravascular stents with a therapeutic coating substance, comprising:

a vacuum chamber having a chamber wall;

stent accommodation means for accommodating said stent or said stents in said vacuum chamber;

substance accommodation means for accommodating said coating substance in said vacuum chamber; and

vaporization means for vaporizing said coating substance in said vacuum chamber to achieve a coating process through which said one or more stents are coated with said coating substance.

25. (Original) The arrangement of claim 24, further comprising heating means for heating at least a part of said chamber wall of said vacuum chamber.

26. (Original) The arrangement of claim 24, further comprising cooling means for cooling said stent or said stents to be coated.

27. (Original) The arrangement of claim 24, further comprising layer thickness determining means for determining a layer thickness of said coating substance on said stent or said stents.

28. (Original) The arrangement of claim 27, wherein said layer thickness determining means comprise timer means arranged to determine the duration of said coating process.

29. (Original) The arrangement of claim 24, wherein said coating substance contains 17beta-estradiol.

30. (Original) The intravascular stent of claim 29, comprising:

a stent body having an inner surface and an outer surface; and

B1 17beta-estradiol provided on said inner surface and/or said outer surface of said stent body.

Cont 31. (Original) The intravascular stent of claim 30, wherein said stent body is provided with an adhesive layer for said 17beta-estradiol on said inner surface and/or said outer surface.